



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/670,467      | 09/26/2000  | Thomas W Holmquist   | 10003232-1          | 3603             |

22879 7590 03/31/2003

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

ZEADE, BERTRAND

ART UNIT PAPER NUMBER

2875

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/670,467

Applicant(s)

HOLMQUIST ET AL.

Examiner

Bertrand Zeade

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 19-32, 48 and 3446 is/are rejected.
- 7) ☒ Claim(s) 13-18, 33 and 47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 2875

## DETAILED ACTION

### *Claim Rejections - 35 U.S.C. § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4,6,9-10-12, 19-24, 26, 29-32, 34-38, 40, 43-46, 48 are rejected under 35

U.S.C. 102(b) as being anticipate by Simms (U.S.4,916,579).

Simms ('579) discloses a gradient index zoom illuminator having:

Regarding claim 1, a tube or barrel (21) having a first end and second end (see fig. 3); a first aperture located proximate the tube (21) second end; a second aperture located approximate the tube second end (see figs. 3-4); a lens (30) located within the tube (21); a base mechanism or housing (15) attached to the tube first end, the base mechanism (15) having a cavity formed therein (see abstract); a light path extending between the cavity or opening (see claim 1) and the second aperture, the light path passing through the first aperture and the lens (30).

Regarding claim 2, a light source (44) located within the base mechanism cavity, the light source (44) being intersected by the light path see figs. (1-6).

Regarding claim 3, the first aperture is smaller than the second aperture (see fig. 1-4)

Regarding claim 4, the first aperture is formed by a member that partially encloses the tube (21) first end.

Art Unit: 2875

Regarding claim 6, the lens (30) is collimating lens.

Regarding claim 9, the lens has a focal length (11) associated therein and further including a light source (44), wherein the light source (44) is located at a preselected location relative to the lens focal length (11).

Regarding claim 10, the tube (21) has an inner surface (see figs. 1-4), the inner surface having a first portion and a second, wherein the diameter of the first portion (21) is different than the diameter of the second portion (20), and wherein the junction of the first portion and the second portion forms a step (see figs. 1-4).

Regarding claim 11, the lens (30) abuts the step.

Regarding claim 12, the lens (30) has a lens surface having a flat circumference portion extending from the lens (30) edge, and wherein the lens (30) flat circumference portion abuts the step.

Regarding claim 19, a tube or barrel (21) having a first end and second end (see fig. 3); a first aperture located proximate the tube (21) second end; a second aperture located approximate the tube second end (see figs. 3-4); a lens (30) located within the tube (21); a base mechanism or housing (15) attached to the tube first end, the base mechanism (15) having a cavity formed therein (see abstract); a light path extending between the cavity or opening (see claim 1) and the receiver, wherein the light path passes through the tube (21) aperture, through the lens (3) and through the tube (21) second aperture (see figs.1-4).

Art Unit: 2875

Regarding claim 20, the cavity has a light source (36/44) located therein and wherein the light path intersects the light source (36/44).

Regarding claim 21, the light source (36) is adapted to emit light having a preselected band of wavelengths and wherein the light receiver (30) is adapted to detect light having the preselected band of wavelengths.

Regarding claim 22, a light filter or lens (30) located in the light path, the light filter being adapted to pass light having the preselected band of wavelengths (see fig. 3).

Regarding claim 23, the first aperture is smaller than the second aperture (see figs. 1-4).

Regarding claim 24, the first aperture is formed by a member that partially encloses the tube (21) first end.

Regarding claim 26, lens (30) is collimated lens(col. 4, lines 20-27).

Regarding claim 29, the lens has a focal length (11) associated therein and further including a light source (44), wherein the light source (44) is located at a preselected location relative to the lens focal length (11).

Regarding claim 30, the tube (21) has an inner surface (see figs. 1-4), the inner surface having a first portion and a second, wherein the diameter of the first portion (21) is different than the diameter of the second portion (20), and wherein the junction of the first portion and the second portion forms a step (see figs. 1-4).

Regarding claim 31, the lens (30) abuts the step.

Art Unit: 2875

Regarding claim 32, the lens (30) has a lens surface having a flat circumference portion extending from the lens (30) edge, and wherein the lens (30) flat circumference portion abuts the step.

Regarding claim 34, a tube or barrel (21) having a first end and second end (see fig. 3); a first aperture located proximate the tube (21) second end; a second aperture located approximate the tube second end (see figs. 3-4); a lens (30) located within the tube (21); a base mechanism or housing (15) attached to the tube first end, the base mechanism (15) having a cavity formed therein (see abstract); a light source (36/44) located in the cavity adjacent the first aperture (see figs. 1-4); a light receiver (30); and a light path extending between the light emitter (36) and the light receiver (30), at least a portion of the light path being adjacent the at least one media holding bay (see figs. 1-4).

Regarding claim 35, the light is adapted to emits light having a preselected band of wavelengths and wherein the light receiver (30) is adapted to detect light having the preselected band of wavelengths.

regarding claim 36, a light filter or lens (30) located in the light path, the light filter being adapted to pass light having the preselected band of wavelengths (see fig. 3).

Regarding claim 37, the first aperture is smaller than the second aperture (see figs. 1-4).

Regarding claim 38, the first aperture is formed by a member that partially encloses the tube (21) first end.

Regarding claim 40, the lens (30) is collimating lens.

Art Unit: 2875

Regarding claim 43, the lens has a focal length (11) associated therein and further including a light source (44), wherein the light source (44) is located at a preselected location relative to the lens focal length (11).

Regarding claim 44, the tube (21) has an inner surface (see figs. 1-4), the inner surface having a first portion and a second, wherein the diameter of the first portion (21) is different than the diameter of the second portion (20), and wherein the junction of the first portion and the second portion forms a step (see figs. 1-4).

Regarding claim 45, the lens (30) abuts the step.

Regarding claim 46, the lens (30) has a lens surface and a lens edge abutting the lens (30) surface, the lens (30) surface having a flat circumference portion extending from the lens (30) edge, and wherein the lens (30) flat circumference portion abuts the step.

Regarding claim 48, at least one media (15) holding; means for producing a substantially collimated light beam (col. 4, lines 4-15); and a light path associated with the substantially collimated light beam extending between the light emitter (36) and the light receiver (30), at least a portion of the light path being adjacent the at least one media holding bay (15).

Art Unit: 2875

***Claim Rejections - 35 U.S.C. § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5,7-8, 25, 27-29, 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simms ('579) in view of Berthold, III et al (U.S.3,536,827).

Regarding claims 5, 7-8, 25, 27-29, 41-42, Simms ('579) discloses the claimed invention except for convex lens and conical aperture.

Berthold, III ('827) discloses an image collection and object illumination having:

Regarding claim 5, the member (10) has a first side facing the tube (see fig. 1) first end and a second side facing away from the tube first end, wherein the first aperture (32) is conical, the portion of the first aperture on the member first side being smaller than the portion of the aperture on the member (10) second side (see fig. 2).

Regarding claim 7, the lens (16) is a symmetrical convex lens.

Regarding claim 8, the lens (16) is a symmetrical convex lens.

Regarding claim 25, the member (10) has a first side facing the tube (see fig. 1) first end and a second side facing away from the tube first end, wherein the first aperture (32) is conical, the portion of the first aperture on the member first side being smaller than the portion of the aperture on the member (10) second side (see fig. 2).



Art Unit: 2875

Regarding claim 27, the lens (16) is a symmetrical convex lens.

Regarding claim 28, the lens (16) is a symmetrical convex lens.

Regarding claim 39, the member (10) has a first side facing the tube (see fig. 1) first end and a second side facing away from the tube first end, wherein the first aperture (32) is conical, the portion of the first aperture on the member first side being smaller than the portion of the aperture on the member (10) second side (see fig. 2).

Regarding claim 41, the lens (16) is a symmetrical convex lens.

Regarding claim 42, the lens (16) is a symmetrical convex lens.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the gradient index zoom illuminator of Simms ('579) with the convex lens and conical aperture disclosed by Berthold III ('827) for the benefit and advantage to provide a pair of convex lenses which focusses both the light beam emanating from the inner core of optical fiber and the reflected light beam so that it can be intercepted by the annular ring of optical fibers, and a cave cone, because the light reflected by the concave cone causes the illumination of a circumferential band on the inner surface of the tube.

Art Unit: 2875

***Allowable Subject Matter***

5. Claims 13-18, 33 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither teach nor suggest a tube first portion having a length of about 20.9 mms, a second portion having a length of about 5 mms, the diameter of the tube first portion being 8.65 mms, the lens having a focal length of about 22.5 mms, a base mechanism having at least one flexible member extending therefrom, the at least one flexible member having a tab attached thereto.

Art Unit: 2875

***Contact Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bertrand Zeade whose telephone number is 703-308-6084. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached on (703) 305-4939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Examiner: Bertrand Zeade

March 21, 2003.

  
Stephen Husar  
Primary Examiner